

**Notice of Allowability**

Application No.

09/998,169

Examiner

Pedro J. Cuevas

Applicant(s)

SHIMIZU ET AL.

Art Unit

2834

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to preliminary amendment filed July 10, 2003.
2. ☒ The allowed claim(s) is/are 1-4.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☒ CORRECTED DRAWINGS must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No. \_\_\_\_\_.
  - (b) ☒ including changes required by the proposed drawing correction filed 03 October 2002, which has been approved by the Examiner.
  - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1 <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                             | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)          |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                    | 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____             |
| 5 <input type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____               | 6 <input type="checkbox"/> Examiner's Amendment/Comment                             |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
|  | 9 <input type="checkbox"/> Other _____  |

## DETAILED ACTION

### *Allowable Subject Matter*

1. Claims 1-4 are allowed.
2. The following is an examiner's statement of reasons for allowance.

Shiga et al. clearly teaches the construction of an automobile generator apparatus having:

a converter composed of semiconductor rectifying devices for rectifying the power output of a magnetic generator and an inverter for converting a direct current output of the converter into an alternating current form of a particular frequency, comprising:

a semiconductor rectifying device driving means for controlling the conduction of the semiconductor rectifying devices to maintain the voltage output of the converter at a target voltage level;

a revolution detecting means for detecting the revolution of the magnetic generator;

a conduction rate detecting means for detecting the conduction rate of the semiconductor rectifying devices; and

an engine revolution controlling means for controlling the revolution of an engine to drive the generator so that the conduction rate is converged on a predetermined target rate, wherein the controlling of the revolution of the engine is implemented by adjusting the supply of fuel to the engine, wherein a rate of change of the revolution of the engine is greater at an increase than at a decrease thereof.

Kato teach the construction of an apparatus and method for engine idle speed control having engine revolution controlling means arranged to decrease the revolution of the engine when the deviation of the conduction rate from the target rate is positive and increase the same when negative for the purpose of either increasing or decreasing the idle speed of an engine so that the actual conduction rate approaches the desired conduction rate.

The prior art of record, taken alone or in combination, fails to teach the construction of an inverter-controlled generator set converter composed of semiconductor rectifying devices for rectifying the power output of a magnetic generator as described on independent claim 1, comprising:

a semiconductor rectifying device driving means for controlling the conduction of the semiconductor rectifying devices to maintain the voltage output of the converter at a target voltage level  $m$  wherein the target voltage level is a target reference level to stabilize the voltage output of the converter; and

a target voltage setting means for setting the target reference level to be low when the detected speed is low and to be high when the detected speed is high so that the voltage input of the inverter shows a stabilized positive characteristic to the detected speed.

Dependent claims 2-4 are considered allowable by their dependence on allowed independent claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (703) 308-4904. The examiner can normally be reached on M-F from 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R. Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3432 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Pedro J. Cuevas  
September 12, 2003

A handwritten signature in black ink, appearing to read "Karl Tamai", with a long, sweeping horizontal line extending to the right.

**KARL TAMAI  
PRIMARY EXAMINER**